

VARIETIES *of* GRAIN *for* ALBERTA

PREPARED BY
ALBERTA VARIETAL
ZONATION COMMITTEE



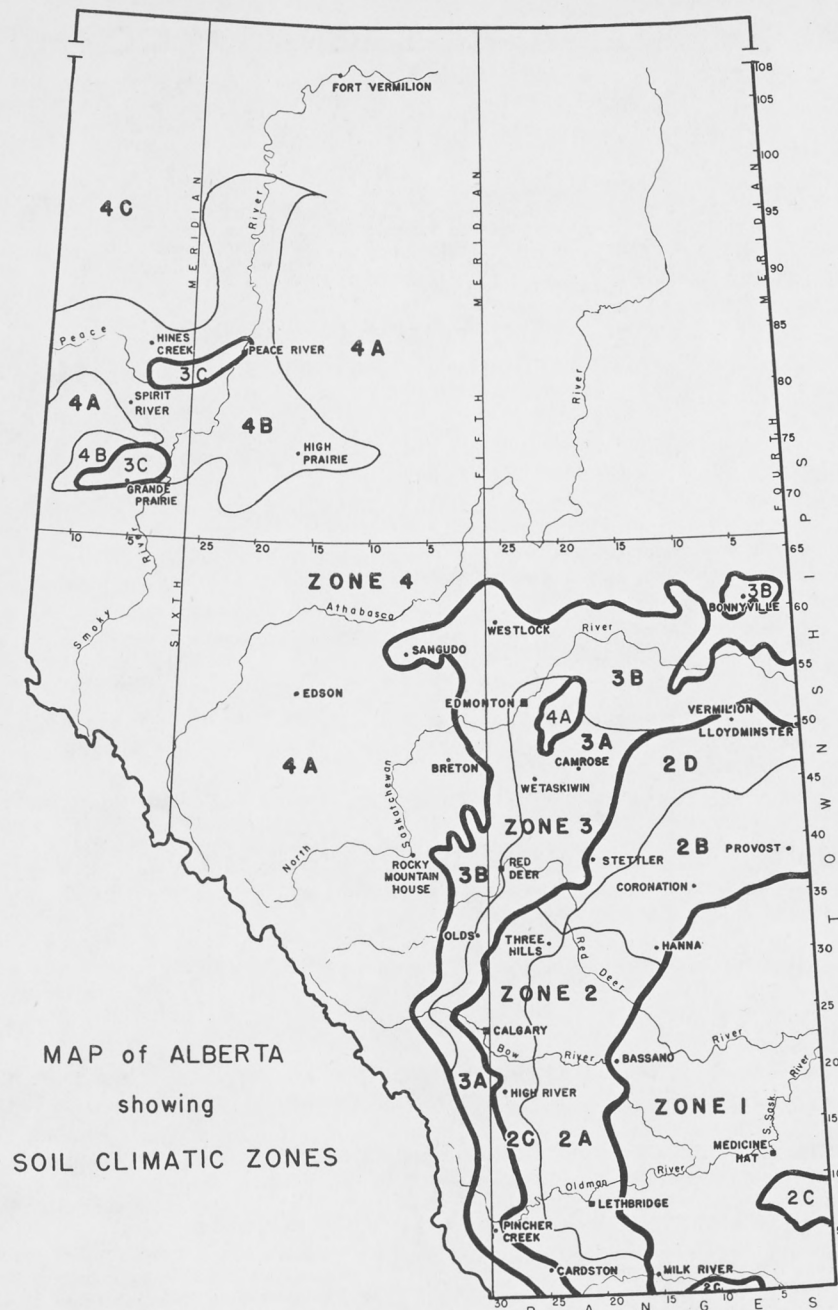
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MINISTER

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WORLD SEED YEAR - 1961



MAP of ALBERTA
showing
SOIL CLIMATIC ZONES

VARIETAL ZONES

In order to give more specific recommendations on varieties, the Province has been divided into zones in which growth conditions are relatively uniform. Such zones naturally merge into each other, and the boundaries as shown on the accompanying map indicate only general outlines. Growth conditions are not entirely uniform throughout any zone, and it is recognized that small areas exist in each where local conditions may make it more profitable to produce a variety not recommended for the whole area. For these reasons, more than one variety is usually recommended for each zone.

VARIETIES RECOMMENDED

(VARIETIES ARE LISTED IN ALPHABETICAL ORDER, NOT ACCORDING TO MERIT OR DESIRABILITY)

Zones	Spring Wheat	Barley	Oats	Flax
1	* Chinook * Rescue Thatcher	Compans Palliser	Eagle Exeter	Redwood
2 A	* Chinook * Rescue Thatcher	Compans Palliser	Eagle Exeter	Redwood
2 B	* Chinook Lake * Rescue Thatcher	Husky Parkland	Eagle Rodney	Redwood
2 C	* Chinook * Rescue Thatcher	Betzes Compans Husky Parkland Wolfe	Eagle Garry Rodney	Redwing Redwood
2 D	Selkirk Thatcher	Gateway Husky Parkland	Eagle Garry Rodney	Redwing Redwood
Irrigated Areas	Selkirk Thatcher	Betzes Harlan Wolfe	Eagle Rodney	Redwood
3 A	Saunders Thatcher	Gateway Husky Parkland Wolfe	Eagle Garry Rodney	Redwing Redwood
3 B	Saunders Thatcher	Gateway Husky Wolfe	Eagle Garry Rodney	Redwing Redwood
3 C	Saunders Thatcher	Gateway Husky Olli	Abegweit Victory	Marine Redwing
4 A	Saunders Thatcher	Gateway Olli Parkland	Eagle Garry Larain	Redwing
4 B	Saunders Thatcher	Gateway Olli Parkland	Abegweit Victory	Marine Redwing
4 C	Saunders Thatcher	Gateway Parkland Wolfe	Abegweit Victory	Marine Redwing Shenney

* Sawfly resistant — see description.

THE ALBERTA VARIETAL ZONATION COMMITTEE

The Committee is composed of representatives of the following Agencies: Department of Plant Science, University of Alberta; Field Crops Branch, Alberta Department of Agriculture; and the Research, Production & Marketing Branches of the Canada Department of Agriculture.

The purpose of this Committee is to co-ordinate the findings of the various experimental agencies and to recommend to farmers those varieties of suitable quality which have proven most suited for production in the various soil climatic zones in Alberta. Recommendations are revised annually, and established varieties are from time to time superseded by others which possess more desirable features.

WHEAT

HARD RED SPRING WHEAT

Thatcher is a high yielding variety of wide adaptability. It is resistant to lodging and highly resistant to shattering. The kernels are small, have a tendency to bleach, and may be low in bushel weight under dry conditions. Thatcher is resistant to most races of stem rust (except 15B), but is susceptible to leaf rust and bunt.

Lake compared with Thatcher is later in maturity, has longer straw, is equal in lodging resistance and has larger kernels which show less tendency to bleach. Because of its late maturity it is recommended only in Zone 2B. It is resistant to bunt and most races of stem rust (except 15B), but is susceptible to leaf rust.

Saunders is earlier maturing than Thatcher, and is generally slightly lower yielding except in the Peace River area. It is equally resistant to lodging and does not shatter readily. Saunders is resistant to most races of stem rust (except 15B), moderately resistant to bunt, but is susceptible to leaf rust.

Selkirk is slightly earlier than Thatcher and compares favourably in yield and lodging resistance, but has a larger, less attractive kernel. It is resistant to stem rust (including Race 15B) and bunt, and moderately resistant to leaf rust.

Chinook and Rescue are similar to Thatcher in maturity, less resistant to shattering and lodging and lower yielding. Both are resistant to the wheat stem sawfly and most races of stem rust (except 15B), but are susceptible to bunt and leaf rust. **Chinook** produces attractive grain of high bushel weight. **Rescue** is slightly more sawfly resistant than Chinook but is not eligible for grades higher than No. 3 Northern.

DURUM WHEAT

The production of **Durum** (macaroni) wheat varieties should be restricted to southern zones because of their late maturity. They are similar to hard red spring wheats in yield, but are generally more susceptible to lodging. **Mindum, Ramsey** and **Stewart** are suitable varieties for production in Southern Alberta.

HARD RED WINTER WHEAT

Kharkov M.C. 22 is the most winter hardy variety available. It is high yielding, resistant to lodging but tends to shatter and is very susceptible to bunt. **Yogo** is equal to Kharkov in yield, more resistant to bunt and to shattering, but less resistant to lodging. These varieties are suitable for production in Zones 1, 2A, 2C and 3A.

SOFT WHITE SPRING WHEAT

This crop should be grown only under contract with a milling company. The most suitable varieties presently available are **Kenhi** and **Lemhi 53**. **Kenhi** is resistant to stem rust including race 15B and moderately resistant to leaf rust. **Lemhi 53** is moderately resistant to most races of stem rust (except 15B), and susceptible to leaf rust. Both are late maturing varieties.

OATS

Eagle is a high yielding variety with wide adaptability. It is semi-resistant to lodging, late maturing and has a comparatively small kernel. Eagle is resistant to smut, moderately resistant to crown rust but susceptible to stem rust.

Victory is recommended for production in northern regions, where it is equal to Eagle in yield and maturity. It has a more attractive grain, produces longer straw, and is less resistant to lodging than Eagle. Victory is susceptible to smut, stem and crown rust.

Abegweit, recommended in northern regions, is similar to Victory in yield, earlier maturing and more resistant to lodging, but has a less attractive grain. It is resistant to some races of stem and crown rust and moderately susceptible to smut.

Rodney yields slightly less and matures slightly earlier than Eagle and is similar in lodging resistance. It has a large, plump kernel that hulls readily. Rodney is resistant to smut and most races of stem and crown rust.

Garry is slightly earlier maturing than Rodney and slightly lower yielding, but similar in lodging resistance. It is resistant to smut, stem rust and most races of crown rust.

Larain is a very early maturing variety with large, plump kernels. It is resistant to lodging, but is low yielding and should be grown only where very early maturity is essential. It is susceptible to smut, stem and crown rust.

BARLEY

Olli, eligible for C.W. grades and acceptable to the malting trade, is a very early maturing, rough awned, low yielding variety which is susceptible to lodging and shattering. It has considerable resistance to loose smut but is susceptible to stem rust and leaf diseases.

Gateway, eligible for C.W. grades, is smooth-awned, higher yielding and slightly later maturing than Olli. It is more resistant to lodging and shattering and is susceptible to loose smut, stem rust and leaf diseases.

Parkland, eligible for C.W. grades and acceptable to the malting trade, is considerably higher yielding but much later maturing than Olli. It is smooth-awned and moderately resistant to lodging and shattering. Parkland is resistant to stem rust, susceptible to loose smut and leaf diseases.

Compana, eligible for 3 C.W. 2-row grade, is an early, two-rowed, semi-smooth-awned variety, which yields well in dry areas and is suitable for straight combining. Under moist conditions it lodges badly. Compana is susceptible to stem rust, loose smut and leaf diseases.

Harlan, not eligible for C.W. grades, is a rough-awned, lodging resistant variety that yields well on irrigated land. It is highly resistant to shattering but tends to be low in bushel weight. Harlan is resistant to many of the leaf diseases but susceptible to loose smut and stem rust.

Husky, not eligible for the C.W. grades, is a smooth-awned, late maturing, very high yielding variety that is resistant to lodging. It tends to shatter in southern regions but is satisfactory in this respect in zones where it is recommended. Husky is resistant to stem rust but susceptible to loose smut and leaf diseases.

Wolfe, not eligible for C.W. grades, is a smooth-awned variety that matures 4 or 5 days later than Olli. It is highly resistant to lodging and higher yielding than Olli in central Alberta. Wolfe yields well under irrigation. It is susceptible to rust, loose smut and leaf diseases.

Palliser, eligible for 3 C.W. 2-row grade; is a semi-smooth-awned variety similar to Compana in seed type, disease reaction and most other characteristics. It is taller than Compana, later in maturity and more resistant to lodging and post-maturity stem break.

Betzes, eligible for C.W. 2-row grades, is a rough-awned variety of medium maturity. It is similar in seed type to Hannchen, but is shorter, more resistant to lodging and post-maturity stem break and is higher in yield. It is susceptible to shattering in southern regions.

FLAX

Marine is early maturing, and resistant to lodging, wilt and rust. In the absence of rust it yields less than Redwing.

Redwing is very early maturing, good yielding, resistant to lodging, moderately resistant to wilt, but susceptible to rust.

Redwood is late maturing, high yielding, moderately resistant to lodging and resistant to wilt and rust.

Sheyenne is very early maturing and resistant to lodging, rust and wilt. In the absence of rust it yields less than Redwing.

RYE

Antelope, Dakold, Petkus and **Sangaste** are varieties of fall rye suitable for Alberta. Antelope and Dakold are more winter hardy than Sangaste which in turn is slightly harder than Petkus. Sangaste and Petkus have large seeds while Antelope and Dakold have small seeds. Petkus has out yielded all varieties in south and south central Alberta, while Sangaste has given superior yields in the Edmonton area. Prolific is a suitable variety of spring rye.

RAPESEED

There are two types of rapeseed being grown in Alberta. Argentine rape which requires from 120 to 130 days to mature is much higher yielding than Polish rape which ripens some three weeks earlier. Argentine rape shatters more readily when ripe. **Golden** is a good yielding variety of the Argentine type and **Arlo** is a good yielding variety of the Polish type.

MUSTARD, SAFFLOWER AND SUNFLOWER

It is advisable that these crops be grown under contract. Mustard and safflower production should be restricted to the extreme southern part of the province. Sunflower production should be limited to that area south and east of a line through Brooks, Strathmore and Claresholm.

WORLD SEED YEAR — 1961

The Food and Agriculture Organization of the United Nations has designated 1961 "World Seed Year". Its purpose is to promote the use of better seed throughout the world as a means of increasing food production. The World Seed Campaign is an integral part of the F.A.O. Freedom - from - Hunger Campaign. One of the most effective methods of increasing the quantity and quality of food production is the use of high-quality seed of high-yielding and well adapted crop varieties.

SEEDS ACT PROTECTS BUYER

The Seeds Act Requires That:

- (a) seed of cereals, forage crops and potatoes must be of licensed varieties only;
- (b) all seed offered for sale in Canada must conform with established standards of purity, germination, and general quality;
- (c) all seed be labelled with the name and address of the seller, the kind, variety when known, and, in the cases of cereals and forage crop seeds, the grade;
- (d) seed imported into and sold in Canada must not be inferior to the standards for No. 3 grade;
- (e) seed must not be falsely represented as to age, vitality, quality, grade, variety, origin, description.

Some of the principal kinds of forage seeds may not be labelled with a variety name unless the seed is Registered or Certified.

Buyers May Choose from Three Different Classes of Seed

1. **Registered Seed**: Canada Registered No. 1 and Canada Registered No. 2.
2. **Certified Seed**: Canada Certified No. 1 and Canada Certified No. 2.

These grades apply only to:

- (a) seed of pedigree recorded by the Canadian Seed Growers' Association;
- (b) seed produced from crops inspected and found pure as to variety;
- (c) seed free from primary noxious weed seeds and practically free from all other weed seeds;
- (d) seed inspected, graded, tagged and sealed by an inspector of the Plant Products Division or, in the case of Certified seed, some one approved for the purpose by the Director of the Plant Products Division.

3. **GENERAL SEEDS OF COMMERCE (Commercial Seed)**: Canada No. 1 Seed, Canada No. 2 Seed, and Canada No. 3 Seed.

Seed of these grades is not guaranteed as to varietal purity but must meet standards for weed and seed content, germination and general quality.

How the Seed Act is Enforced

Officers of the Plant Products Division are responsible for sampling, grading, testing, and inspecting seed under the Act. Seed that does not meet the prescribed standards may be detained until it meets the standards, or is withdrawn from sale for seeding purposes. In addition, penalties may be imposed for violations of the Seeds Act and Regulations.

The Seeds Act Protects the Buyer of Seed

It applies to all agricultural and horticultural seeds. Grade standards for each class and grade of seed are listed in the Regulations, and buyers of seed should study them so as to purchase the best seed possible.

Copies of the Seeds Act and Regulations may be had free of charge by writing the Information Division, Canada Department of Agriculture, Ottawa, Ontario.

ONLY THE BEST IS GOOD ENOUGH — USE REGISTERED OR CERTIFIED SEED.